

AMENDMENTS TO THE SPECIFICATION

Please replace the Title of the Invention with the following Title:

--An Isolated Ligand of ChemerinR--

Please replace the paragraph on page 84, lines 2-14 with the following paragraph:

--Example 16. The shorter C-terminal nonapeptide YFPGQFAFS (SEQ ID NO: 61) has a high affinity on ChemerinR

We then determined the minimum length of the C-terminal fragment able to activate the Chemerin receptor with high potency. Successive truncations of the N-terminal domain of the hChemerin-19 peptide were synthesized and tested using the aequorin assay (figure 25C). Truncations from residue 1 to residue 10 (hChemerin-17 to hChemerin-9, Figure 20 and EC₅₀ values in table 2) did not affect intracellular calcium signaling. However, removal of the Tyrosine residue in position 11 (hChemerin-8) resulted in a severely loss of affinity for the receptor (EC₅₀ of $2 \pm 1 \mu\text{M}$ compared to a value of $16.7 \pm 3.2 \text{ nM}$ for the control peptide: Human chemerin-19), and the response was completely abrogated for shorter peptide (hChemerin-7, EC₅₀ of $220 \pm 100 \mu\text{M}$). These results indicated that only the last 9 amino acids of Chemerin are necessary for high affinity receptor activation, as the EC₅₀ of the nonapeptide is $7 \pm 0.25 \text{ nM}$, which is in the same range to the affinity of the recombinant Chemerin. --

Please replace the paragraph on page 84, lines 16-22 with the following paragraph:

--Since multiple residues within the last 9 amino acids sequence of Chemerin appeared to be important for receptor activation, we examined the relative contribution of each amino acid of the YFPGQFAFS (SEQ ID NO: 61) peptide in Chemerin receptor activation, by using an alanine-scanning mutagenesis approach. Eight different alanine-substituted hChemerin-9 analogs were synthesized and tested for intracellular calcium accumulation. As shown in Figure 25D and Table 2, the EC₅₀ of the Q5A, P3A

and S9A mutated peptides was shifted to higher concentrations (EC_{50} of 35.8 ± 5.9 nM, 42.5 ± 7.5 nM and 48.3 ± 5.7 nM respectively) as compared with the control peptide--